

REMARKS

The Examiner's Action mailed on May 5, 2006 has been received and its contents carefully considered.

In this Amendment, Applicant has amended the specification, without adding new matter, and amended claims 1 and 8. Claims 3, 5-7 and 10 have been cancelled. New dependent claims 15-19 have been added to further protect the invention. Claims 1 and 8 are the independent claims. Claims 1, 4, 8, 11-19 are pending in the application. For at least the following reasons, it is submitted that this application is in condition for allowance.

The Examiner has rejected claims 1, and 3-4 under 35 U.S.C. 102(b) as being anticipated by *Hirashiro et al.* (JP 2001283624A). Claim 1 has been amended, claim 3 has been cancelled, and it is submitted that amended claim 1, as well as the claim 4 and new claims 15-19 dependent therefrom, are patentably distinguishable over the cited reference for at least the following reasons.

It is well settled that a reference may anticipate a claim within the purview of 35 U.S.C. §102 only if all the features and all the relationships recited in the claim are taught by the reference structure either by clear disclosure or under the principle of inherency.

Amended independent claim 1 is directed to a direct backlight module, comprising at least a reflective base, a lamp tube, a frame, a casing and an airflow channel. The reflective base has two opposite side regions, and two ends of each side region have two opposite openings. The lamp tube disposed on the reflective base has

two electrodes respectively at two opposite ends of the lamp tube. A frame covers the reflective base and the lamp tube. The casing between the frame and the reflective base is mounted to the reflective base. The casing including a first side wall and a second side wall spaced from the first side wall, is fixed to the reflective base and a top wall joins the first and second side walls opposite the reflective base, so as to define a chamber. One of the electrodes of the lamp tube is disposed in the chamber. An airflow channel is formed by the combination of the chamber and one of the openings of each of the side regions of the reflective base. The frame has holes opposing opposite ends of the airflow channel. The lamp tube and the airflow channel are constructed on the same level.

Hirashiro et al. discloses a direct backlight module having a reflective base for disposing the lamp tubes. The Examiner characterizes the diaphragm 59 as a casing. However, the two diaphragms 59 of *Hirashiro et al.* are not casings, but rather are plates within an outer frame, having holes for receiving the respective ends of each lamp tube, for fixing the lamp tube in place. *Hirashiro et al.* does not disclose (or otherwise suggest) that a casing including a top wall, a first side wall and a second side wall, and a chamber defined by the reflective base and the casing. In particular, *Hirashiro et al.* does not disclose that a frame is disposed on the top of a casing (which itself covers an electrode of the lamp tube) for covering the reflective base and the lamp tube. As such, it is submitted that Applicants' independent claim 1, and the claim 4 and 15-19 dependent therefrom, are patentably distinguishable over the cited reference. It is requested that this rejection be withdrawn.

The Examiner has rejected claim 5 under 35 U.S.C. 103(a) as being unpatentable over *Hirashiro et al.* (JP 2001283624A) further in view of *Hayashi et al.* (US 6,655,810). Claim 5 has been cancelled. The rejection therefore no longer is applicable and accordingly should be withdrawn.

The Examiner has rejected claims 6-7 under 35 U.S.C. 103(a) as being unpatentable over *Hirashiro et al.* in view of *Yamamoto et al.* (US 6,089,739). Claims 6-7 have been cancelled. The rejection therefore no longer is applicable and accordingly should be withdrawn.

The Examiner has rejected claim 8, 10-11 and 14 under 35 U.S.C. 103(a) as being unpatentable over *Hirashiro et al.* in view of *Hayashi et al.* (US 6,655,810). Claim 8 has been amended, claim 10 has been cancelled, and it is submitted that amended claim 8, as well as claims 11 and 14 dependent therefrom, are patentably distinguishable over the references for at least the following reasons.

It is well-settled law that in order to properly support an obviousness rejection under 35 U.S.C. §103, there must have been some teaching in the prior art to suggest to one skilled in the art that the claimed invention would have been obvious. W.L. Gore & Associates, Inc. v. Garlock Thomas, Inc., 721 F.2d 1540, 1551 (Fed. Cir. 1983).

Amended independent claim 8 is directed to a direct backlight module comprising a reflective base, a buffer block, a lamp tube, a frame, a casing, an airflow channel and a heat-transmitting fin. The reflective base has two opposite side regions, and two ends of each side region have two opposite openings. The buffer block is disposed on the reflective base and positioned oppositely to one of the openings. The

lamp tube has two electrodes respectively at two opposite ends of the lamp tube, wherein one of the electrodes is mounted in the buffer block. The frame covers the reflective base and the lamp tube. The casing between the frame and the reflective base is mounted to the reflective base and covers the buffer block. The casing including a first side wall and a second side wall spaced from the first side wall, is fixed to the reflective base and a top wall joins the first and second side walls opposite the reflective base, so as to define a chamber. One of the electrodes of the lamp tube is disposed in the chamber. An airflow channel is formed by the combination of the chamber and one of the openings of each of the side regions of the reflective base. The frame has holes opposing opposite ends of the airflow channel. The heat-transmitting fin is disposed on the buffer block and inside the casing, so that heat generated from the two electrodes of the lamp tube is radiated from the buffer block and the heat-transmitting fin, and then transmitted outside the frame through the airflow channel.

The Examiner states that *Hirashiro et al.* discloses a direct backlight module including a reflective base, a buffer block, a lamp tube and a casing. Also, the Examiner acknowledges that *Hirashiro et al.* does not specifically teach a heat-transmitting fin being disposed on a buffer block, and states that *Hayashi et al.* teaches a lighting unit, wherein a heat-transmitting fin [Figure 1B: (35)] disposed on a buffer block [Figure 1B: (6)] housing a lamp tube with electrodes, accentuates heat transfer of the system via airflow [Figure 2]". The Examiner asserts that it would have been obvious to modify the buffer block with lamp electrode of *Hirashiro et al.* to

incorporate the heat-transmitting fin as principally taught by *Hayashi et al.* However, it is submitted that it would not be obvious to make such a modification. What the Examiner calls a casing is a diaphragm 59, which clearly is not a casing in the sense of the claimed invention. The diaphragms 59 of *Hirashiro et al.* are not casings but rather are plates within an outer frame. The diaphragms 59 serve the purpose of holding the respective ends of lamp tubes for fixing the lamp tube in place (see Drawings. 10 and 11), and would not and could not serve as the casing according to the claimed invention. Also, *Hirashiro et al.* does not disclose (or otherwise suggest) that a “frame” is disposed on the top of the casing, and a “chamber” is defined by the reflective base and walls of the casing (including the top wall, first and second walls). Moreover, *Hirashiro et al.* fails to disclose or suggest an airflow channel formed by the combination of the **chamber** and one of the **openings** of each of the side regions of the reflective base, in particular, the frame on the top of the casing has **holes** opposing opposite ends of the airflow channel. Besides *Hirashiro et al.*, the other cited references including *Hayashi et al.* and *Yamamoto et al.*, do not disclose or suggest the casing within the outer frame and the airflow channel in the sense of the claimed invention.

Thus, it would not be obvious to a person skilled in the art to make a such modification. It is therefore submitted that the amended independent claims 1 and 8 are patentably distinguishable over the prior art, and claims 4 and 11-19 are allowable for at least the reason that they depend from claims 1 and 8, so that this application is

deemed clearly to be in condition for allowance. Allowance of the application and the passing of this case to issue are therefore respectfully requested.

If the Examiner believes that a conference would be of value in expediting the prosecution of this application, the Examiner is hereby invited to telephone the undersigned counsel to arrange for such a conference.

Should the remittance be accidentally missing or insufficient, the Commissioner is hereby authorized to charge the fee to our Deposit Account No. 18-0002, and advise us accordingly.

Respectfully submitted,

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Date



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